FIG.1

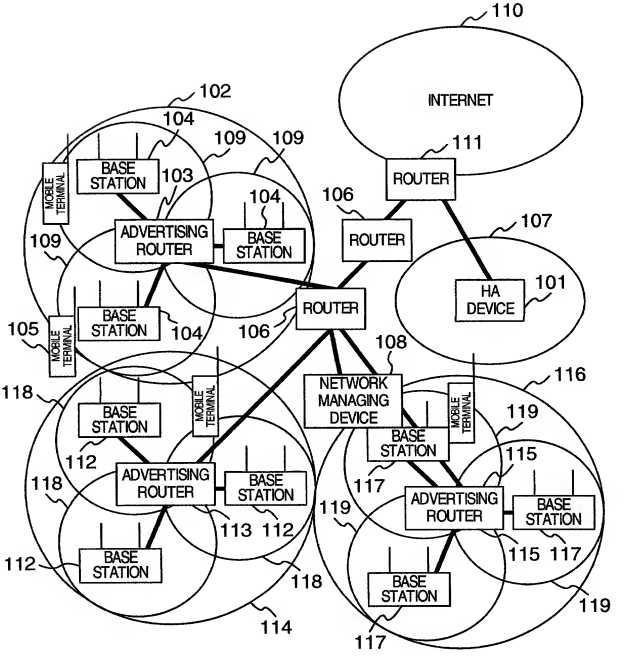

110
INTERNET
111
ROUTER
102
104
109
109
BASE STATION
103
MOBILE TERMINAL
104
106
ROUTER
107
109
ADVERTISING ROUTER
BASE STATION
HA DEVICE
101
ROUTER
105
BASE STATION
104
106
MOBILE TERMINAL
108
116
NETWORK MANAGING DEVICE
118
BASE STATION
MOBILE TERMINAL
MOBILE TERMINAL
119
BASE STATION
112
115
118
ADVERTISING ROUTER
BASE STATION
117
119
ADVERTISING ROUTER
BASE STATION
113
112
115
117
112
BASE STATION
118
BASE STATION
119
114
117

FIG.2

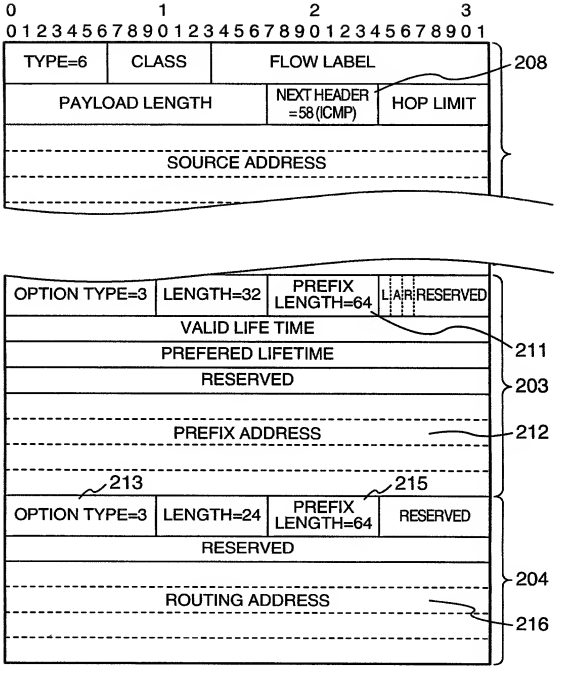
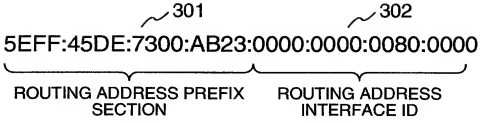

0
1
2
3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
TYPE=6
CLASS
FLOW LABEL
208
PAYLOAD LENGTH
NEXT HEADER =58 (ICMP)
HOP LIMIT
SOURCE ADDRESS
OPTION TYPE=3
LENGTH=32
PREFIX LENGTH=64
L
A
R
RESERVED
VALID LIFE TIME
PREFERED LIFETIME
211
RESERVED
203
PREFIX ADDRESS
212
213
215
OPTION TYPE=3
LENGTH=24
PREFIX LENGTH=64
RESERVED
RESERVED
204
ROUTING ADDRESS
216

FIG.3



ROUTING ADDRESS STRUCTURE

FIG.4A

BASE STATION (104)

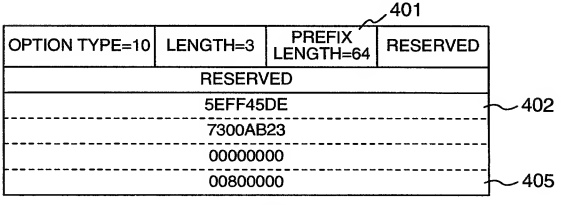


FIG.4B

BASE STATION (112)

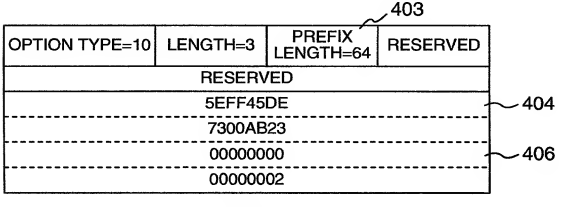


FIG.4C

ROUTING HEADER ADDRESS

5EFF:45DE:7300:AB23:0000:0000:0080:0002

FIG.5

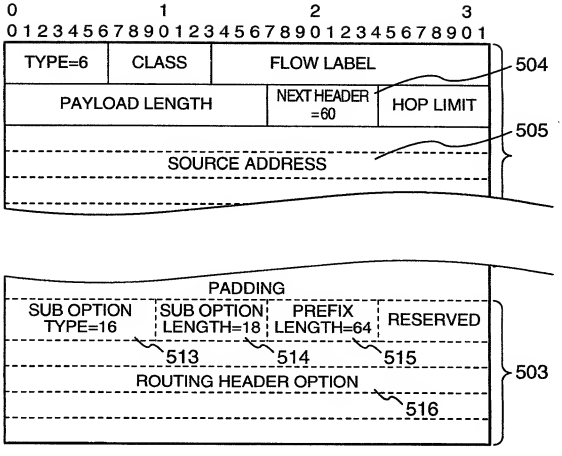


FIG.6

601 HOME ADDRESS	602 CARE-OF ADDRESS	603 ROUTING HEADER ADDRESS	604 LIFETIME (SECONDS)
3FFE:2002:5678:BCDA:0080:C7FF:FE5F:9F3D	2001:4555:7300:AB23:0080:C7FF:FE5F:9F3D	0000:0000:0000:0000:0000:0000:0000:0000	311
3FFE:2002:5678:BCDA:0080:DEFF:FE78:AD32	2001:4555:7300:AB23:0080:DEFF:FE78:AD32	5EFF:45DE:7300:AB23:0000:0200:0080:0000	153
. . . . .	. . . . .	. . . . .	. . . . .

FIG.7

901 ADDRESS	905 PREFIX LENGTH	902 FIRST I/F	903 SECOND I/F	904 THIRD I/F
5EFF:45DE:7300:AB23:0000:0000:0000:0002	128	ADVERTISING ROUTER (103)		
5EFF:45DE:7300:AB23:0000:0000:0000:0800	128	ADVERTISING ROUTER (113)		
5EFF:45DE:7300:AB23:0040:0000:0000:0000	128	ADVERTISING ROUTER (115)		
5EFF:45DE:7300:AB23:0000:0000:0000:0802	128	ADVERTISING ROUTER (103)	ADVERTISING ROUTER (113)	
5EFF:45DE:7300:AB23:0040:0000:0000:0802	128	ADVERTISING ROUTER (103)	ADVERTISING ROUTER (113)	ADVERTISING ROUTER (115)
5EFF:45DE:7300:AB23:0040:0000:0000:0002	128	ADVERTISING ROUTER (103)	ADVERTISING ROUTER (115)	
5EFF:45DE:7300:AB23:0040:0000:0000:0800	128	ADVERTISING ROUTER (113)	ADVERTISING ROUTER (115)	
. . . . .	128	. . . . .	. . . . .	. . . . .

FIG.8

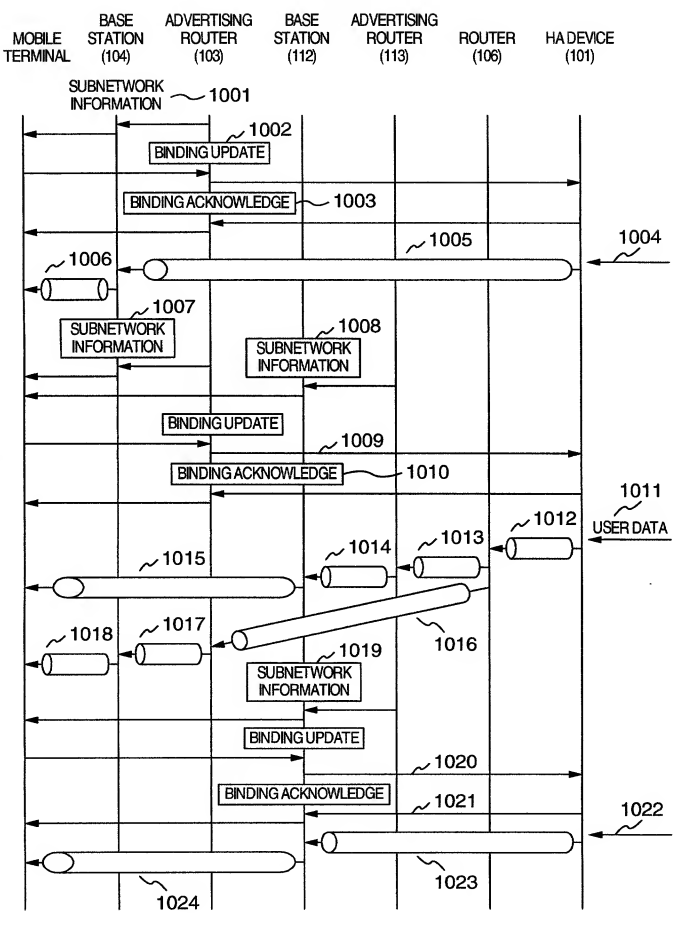

MOBILE TERMINAL
BASE STATION (104)
ADVERTISING ROUTER (103)
BASE STATION (112)
ADVERTISING ROUTER (113)
ROUTER (106)
HA DEVICE (101)
SUBNETWORK INFORMATION
1001
1002
BINDING UPDATE
BINDING ACKNOWLEDGE
1003
1004
1005
1006
1007
SUBNETWORK INFORMATION
1008
SUBNETWORK INFORMATION
BINDING UPDATE
1009
BINDING ACKNOWLEDGE
1010
1011
USER DATA
1012
1013
1014
1015
1016
1017
1018
1019
SUBNETWORK INFORMATION
BINDING UPDATE
1020
BINDING ACKNOWLEDGE
1021
1022
1023
1024

FIG.9

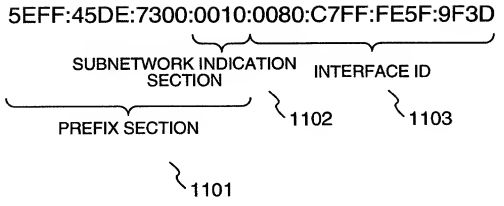

5EFF:45DE:7300:0010:0080:C7FF:FE5F:9F3D
SUBNETWORK INDICATION SECTION
INTERFACE ID
PREFIX SECTION
1102
1103
1101

FIG.10

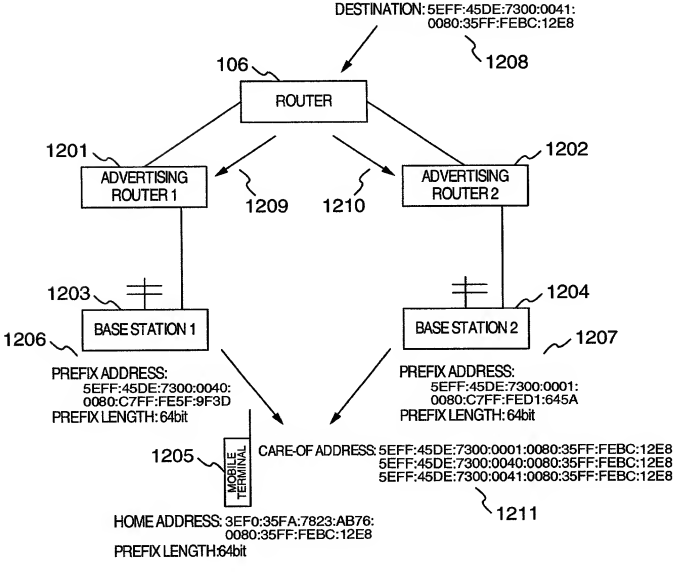

DESTINATION: 5EFF:45DE:7300:0041:
0080:35FF:FEBC:12E8
1208
106
ROUTER
1201
ADVERTISING ROUTER 1
1209
1210
ADVERTISING ROUTER 2
1202
1203
BASE STATION 1
1204
BASE STATION 2
1206
1207
PREFIX ADDRESS:
5EFF:45DE:7300:0040:
0080:C7FF:FE5F:9F3D
PREFIX LENGTH: 64bit
PREFIX ADDRESS:
5EFF:45DE:7300:0001:
0080:C7FF:FED1:645A
PREFIX LENGTH: 64bit
1205
MOBILE TERMINAL
CARE-OF ADDRESS: 5EFF:45DE:7300:0001:0080:35FF:FEBC:12E8
5EFF:45DE:7300:0040:0080:35FF:FEBC:12E8
5EFF:45DE:7300:0041:0080:35FF:FEBC:12E8
1211
HOME ADDRESS: 3EF0:35FA:7823:AB76:
0080:35FF:FEBC:12E8
PREFIX LENGTH:64bit

FIG.11

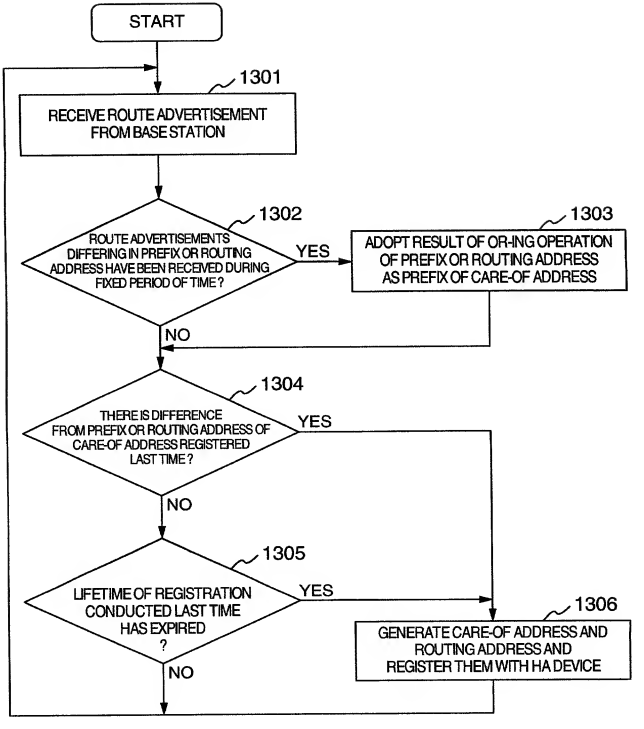

START
1301
RECEIVE ROUTE ADVERTISEMENT FROM BASE STATION
1302
ROUTE ADVERTISEMENTS DIFFERING IN PREFIX OR ROUTING ADDRESS HAVE BEEN RECEIVED DURING FIXED PERIOD OF TIME?
YES
1303
ADOPT RESULT OF OR-ING OPERATION OF PREFIX OR ROUTING ADDRESS AS PREFIX OF CARE-OF ADDRESS
NO
1304
THERE IS DIFFERENCE FROM PREFIX OR ROUTING ADDRESS OF CARE-OF ADDRESS REGISTERED LAST TIME?
YES
NO
1305
LIFETIME OF REGISTRATION CONDUCTED LAST TIME HAS EXPIRED ?
YES
NO
1306
GENERATE CARE-OF ADDRESS AND ROUTING ADDRESS AND REGISTER THEM WITH HA DEVICE

FIG.12

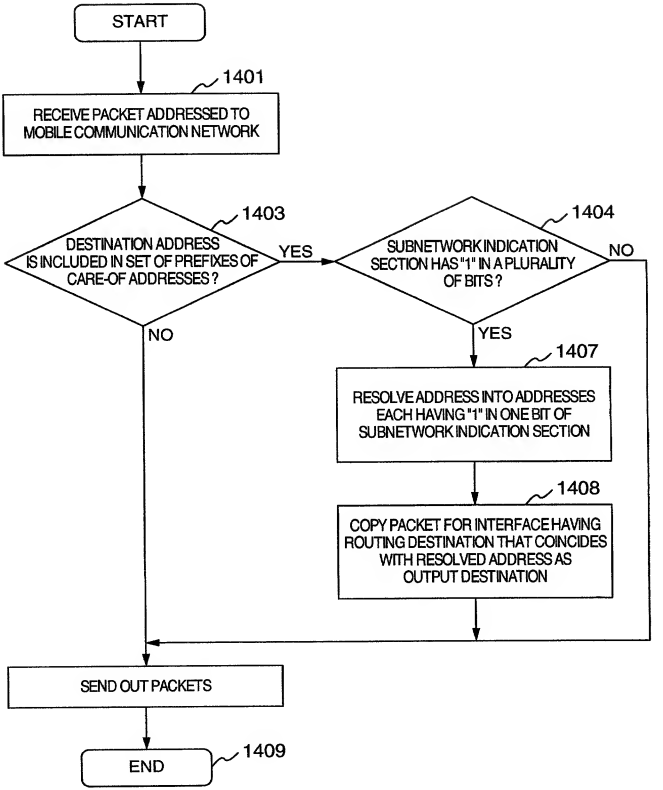
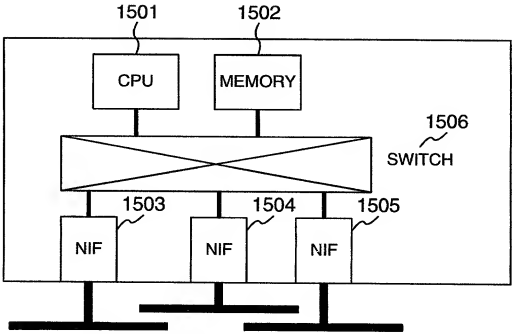

START
1401
RECEIVE PACKET ADDRESSED TO MOBILE COMMUNICATION NETWORK
1403
DESTINATION ADDRESS IS INCLUDED IN SET OF PREFIXES OF CARE-OF ADDRESSES?
YES
NO
1404
SUBNETWORK INDICATION SECTION HAS "1" IN A PLURALITY OF BITS?
NO
YES
1407
RESOLVE ADDRESS INTO ADDRESSES EACH HAVING "1" IN ONE BIT OF SUBNETWORK INDICATION SECTION
1408
COPY PACKET FOR INTERFACE HAVING ROUTING DESTINATION THAT COINCIDES WITH RESOLVED ADDRESS AS OUTPUT DESTINATION
SEND OUT PACKETS
END
1409

FIG.13



CONFIGURATION EXAMPLE OF
HA DEVICE AND ROUTER